

APPENDIX A

Engineering Field Trip Report

Yokohl Valley Reservoir

Field Trip Log

Trip Log Number:	3	Project No.:	1003032.01180502
Dates:	6/11/02	Times:	1400-1430
Site Name:	New Yokohl Creek	Location:	Exeter
Prepared By:	DKR/JMH/WAM	Reviewed By:	
Date:	6/11/02	Date.:	

Attendees/Visitors Name	<u>1.1.1.1.1.1 Organization/Phone/Email</u>
DKR	MWH, 925.685.6275 x125, david.k.rogers@ei.mwhglobal.com
JMH	MWH, 925.685.6275 x143, james.m.herbert@ei.mhwglobal.com
WAM	MWH, 425.602.4025 x1060, william.a.moler@ei.mwhglobal.com

Weather Conditions:

Clear with slight haze, warm (low 90s), light breeze

Access Route (attach map):

Highway 99, State highway 198 (E) through Visalia to County Road M 296 (E)

Attachments:	Yes	No
Photo Log	✓	
Photos	✓	
Video Log (available)	✓	
Dictation Log (available)	✓	
Topographic Map	✓	

Purpose:

Review proposed location of new damsite.

Field Observations:

Existing Structures/Cultural Features:

A couple residential properties were observed; one upstream (Gill Ranch) and one downstream of the proposed damsite.

Right of Way/Access Restrictions:

Access to the Yokohl Creek damsites is available via a paved county road (County Road 296).

Overhead/Buried Utilities:

Overhead power and buried telephone lines were noted along the county road.

Description of Proposed Structures (attached a field sketch or sketch on a topo map):

Technical Memorandum 4 (URS, 2000) identified a new Yokohl Creek damsite location as being ~8 miles southwest of Terminus Dam or ~7 miles south of Woodlake Township. URS discussed a new zoned earthfill dam extending to a height of 320 feet and a storage capacity of ~970,000 ac ft. In addition to natural runoff from the upstream drainage area, an 8-mile long, 10-ft diameter tunnel would divert water from Lake Kaweah to Yokohl Reservoir (URS, 2000).

USBR cost takeoffs from April 1958 (5 sites) and February 1975 (one site) summarize possible new Yokohl Creek damsites. A draft Geologic Report prepared in 1975 by USBR documents recommended a 260-foot high, 12 million cubic yard earthfill dam that would create a 450,000 ac ft reservoir covering a surface area of 4,400 acres. The el. 805 crest would be ~2,960 feet long and 30 feet wide. The spillway would be an ungated overflow crest with a maximum discharge of 1,200 cfs. The outlet works would be capable of discharging 700 cfs. Two small saddle dams in the hills west of the damsite would be required. In the 1975 scenarios, water flow would be moved to Yokohl Creek reservoir from, at the time, the to-be-built 18-mile-long Mid-Valley Canal, a 1 ½-mile long tunnel, and pump stations.

Description of Appurtenant Features (spillways, tunnels, pumping plants, flood routing/coffer dams/dewatering during construction, outlet works, switch yards, transformer yards, transmission lines, conveyance pipelines/canals, access roads, security, operation/maintenance):

The 1975 USBR design shows the axis of the embankment dam extending eastward across Yokohl Creek.

Briefly Describe Geologic/Geotechnical Site Conditions:

The Yokohl Creek damsite is located at the boundary of the Sierra Nevada foothills and the Great Valley. The Yokohl Creek damsite would be located in a north- to northwest-flowing tributary to the Kaweah River. The site is located in the

“serpentine belt” along the western margin of the Sierra Nevada. The left abutment location is underlain by Mesozoic ultrabasic intrusive rocks that reportedly consist of steeply-east dipping schistose to sub-schistose serpentine and meta-gabbro with talcose stringers. The right abutment is reportedly underlain by pre-Cretaceous meta-volcanic rock (amphibolite), undifferentiated pre-Cretaceous metasedimentary rocks and ultrabasic intrusive rocks (meta-gabbro). Mesozoic intrusive granitics are exposed on the east rim of Yokohl Valley.

Recent river alluvium deposits of sand, gravel, and cobbles were encountered in boreholes advanced in February 1975 to depths of up to ~23 feet. Between ~23 to 34 feet below ground surface (bgs), hard gravel and cobbles were reported mixed with sand, silt and sandy clay. Below 34 feet bgs, clayey gravel is reported to the total depth drilled (87 feet bgs). From geophysical data, the alluvium is estimated to be ~100 to 120 feet thick.

Previous studies indicate that there are no faults in the area capable of producing ground motions greater than those generated by four known regional sources that include the San Andreas fault system, the Sierra Frontal fault system, the White Wolf fault, and the Garlock fault (USCOE, 1990)

Location/Description of Nearest Borrow Areas (attach map or show on topo map):

The Draft Geologic Report indicated that there may be a number of potential borrow areas within the proposed reservoir footprint..

Location/Description of Equipment/Material Staging and Lay Down Areas (attach map or show on topo map):

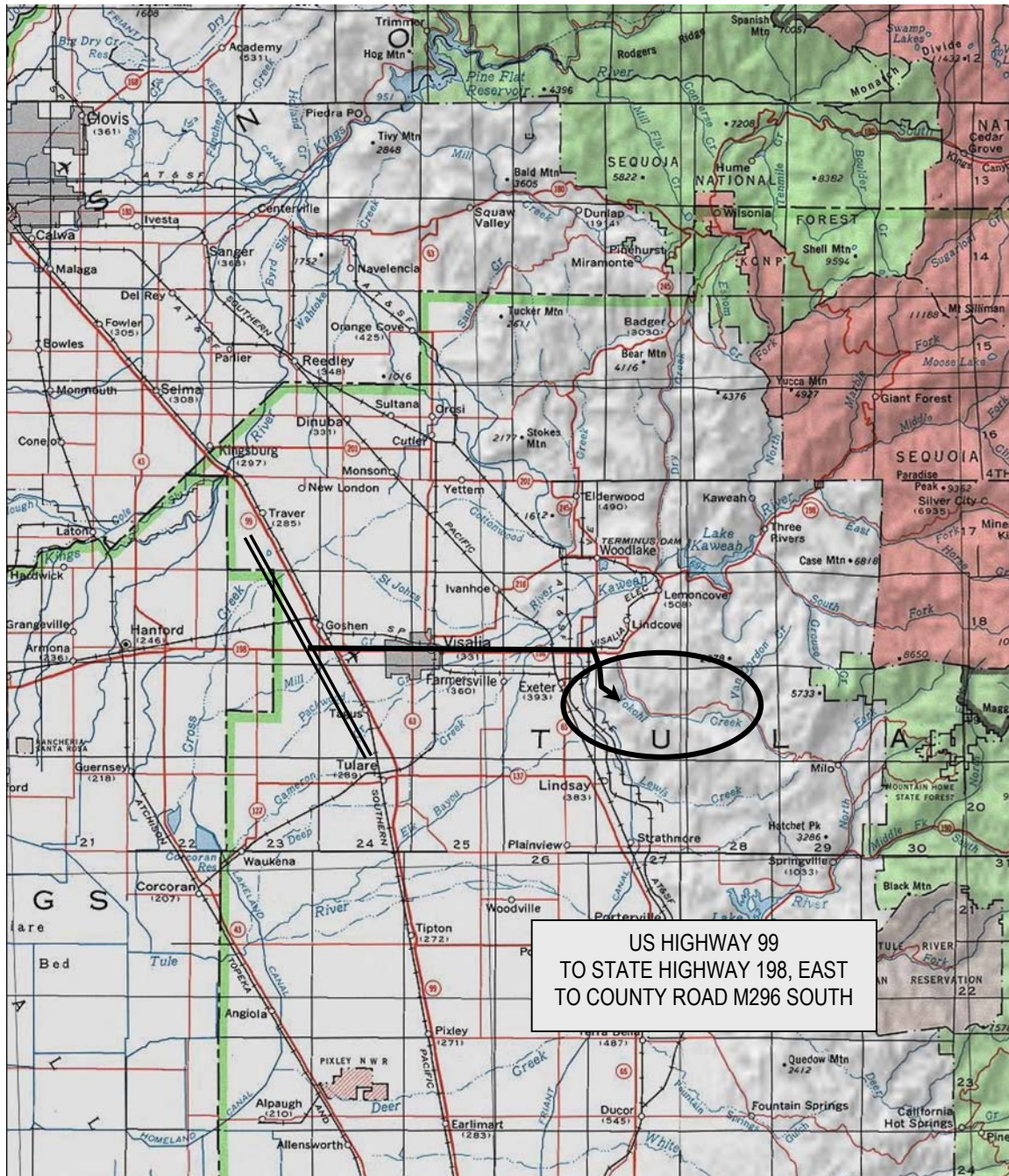
Potential staging and laydown areas are located downstream of the proposed Yokohl Creek damsite.

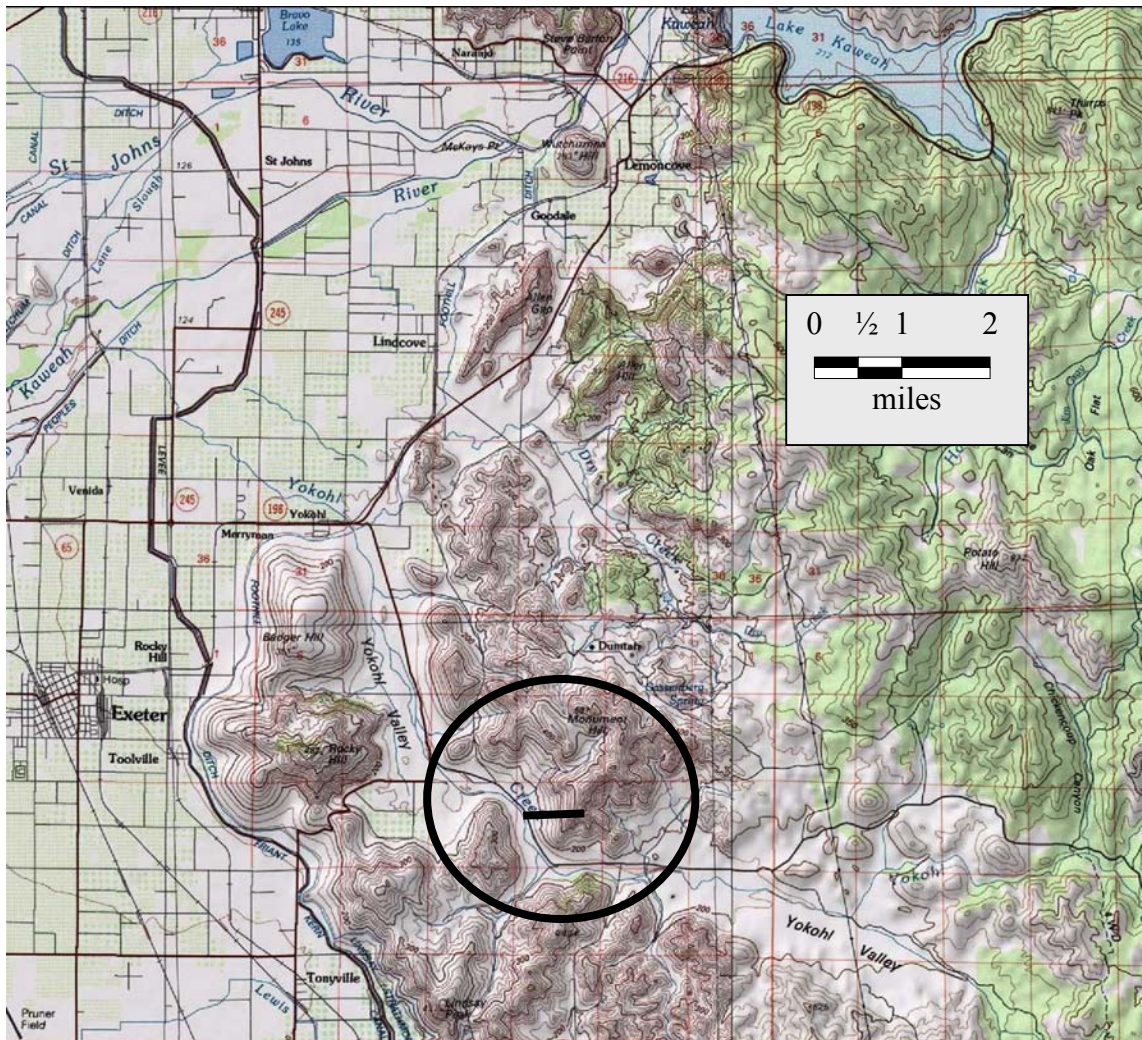
Identification of Environmental Sensitive Areas (wetlands, springs, rivers, streams, endangered/threatened species habitats, etc.):

Oak woodland habitat and grassy grazeland surrounds the damsite.

Description of Mining or Other Anthropologic Activities:

None noted.







Yokohl Creek – View toward proposed right dam abutment.



View toward proposed left dam abutment.



Yokohl Creek – View toward proposed right dam abutment.



View toward proposed right dam abutment.

THIS PAGE LEFT BLANK INTENTIONALLY